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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/542,271

03/13/2006

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10/01/2007

EXAMINER

PAIK, SANG YEOP

ART UNIT

PAPER NUMBER

3742

MAIL DATE

DELIVERY MODE

10/01/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/542,271

Applicant(s)

LAMB, STUART

Examiner

Sang Y. Paik

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 and 44 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-28, 34-42 and 44 is/are rejected.
- 7) ☒ Claim(s) 29-33 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/15/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4, 22-28, 34-42 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leiprecht (US 6,121,587) in view of Gossler (US 4,394,646).

Leiprecht shows the electric heater claimed including an annular support having a heating element, and a temperature-limiting device having a snap disc bimetallic device provided in a housing which is thermally coupled to the heater to sense the heat generated therein and be responsive to a predetermined temperature and to operate a switch via an intermediate rod member in the housing. But, Leiprecht does not show the heating element having a first and second terminal region connected to the first and second electrically conductive elements, respectively.

Gossler shows an electric heater including a heating element and a temperature-limiting device having a thermally responsive bimetallic means provided in a housing made of ceramic material with a first and second electrically conductive elements provided on the opposite side of the housing. The first and second electrically conductive elements are connected to the first and second terminal regions of a heating element to supply power to the heating element.

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In view of Gossler, it would have been obvious to one of ordinary skill in the art to adapt Leiprecht with the recited first and second conductive elements to provide the electrical connection to the respective terminal regions of the heating element to supply the power thereto.

With respect to claim 4, it would have been obvious to one of ordinary skill in the art to use a welding or other suitable means to connect the terminals to the conductive elements since such means is well known in the art, and furthermore, it is noted that such recitation renders the claim as a product by process wherein the patentability depends on the structure/product and not by the method by it is made.

With respect to claims 22 and 23, it would have been obvious to one of ordinary skill in the art to adapt the conductive element made of metals such as stainless steel or nickel plated steel or any other suitable materials since such elements are well known in the art to be an electrical good conductive elements.

With respect to claims 24-28, Gossler shows the first conductive element electrically connected to a switch, the second conductive element adapted for an external lead wire, a third conductive terminal (39 or 40) provided at the side of the housing and connected to the switch (also see the drawing Figure). It would have been obvious to one of ordinary skill in the art to further adapt Leiprecht with the recited arrangement to further allow electrical connections to accommodate a heat indicative lamp as well as other heater operating functions to enable the user to further control the heater device.

3. Claims 3 and 5-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leiprecht in view of Gossler as applied to claims 1, 2, 4, 22-28, 34-42 and 44 above, and further in view of Bates et al (US 6,756,569) or Petri et al (US 5,420,398).

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Leiprecht in view of Gossler shows the heater claimed except for the conductive elements extending through a dish-like support and further with a portion selected from a strip-like portion and a flanged portion.

Bates and Petri show that it is known in the art to provide an electrical connection to the terminals of the heating element with a strip-like electrical conductive element provided through the dish-like support. Bates also shows a flange like laterally-directed portion (20) provided to further secure the terminals of the heating element, and Petri also shows that it is known to provide the electrical conductive with a conductive link (41f) extending through a dish-like support.

In view of Bates or Petri, it would have been obvious to one of ordinary skill in the art to adapt Leiprecht, as modified by Gossler, with the strip-like portion and a flange portion to securely attach the heating terminals to the conductive members.

4. Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leiprecht in view of Gossler as applied to claims 1, 2, 4, 22-28, 34-42 and 44 above, and further in view Gross et al (US 5,393,958).

Leiprecht in view of Gossler shows the heater device claimed except for the corrugated form of heating element upstanding on its edge.

Gross shows that it is well known in the art to provide a corrugated heating element that is upstanding on its edge with twisted connecting terminal portions.

In view of Gross, it would have been obvious to one of ordinary skill in the art to adapt Leiprecht, as modified by Gossler, with the recited heating element to provide a more efficient radiant heater.

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Allowable Subject Matter

5. Claims 29-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Y. Paik whose telephone number is 571-272-4783. The examiner can normally be reached on M-F (6:30-3:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Sang Y Paik
Primary Examiner
Art Unit 3742

syp